WHAT IS CLAIMED IS:

1. A tempered glass sheet comprising a residual compressive stress layer formed at the surface of the glass sheet and a residual tensile stress layer formed inside the glass sheet to increase the strength of the glass sheet by a balance of the residual stresses in these layers,

wherein the tempered glass sheet has in its front view a peripheral region including the periphery and a central region occupying the inside of the peripheral region, and the average surface compressive stress in the central region is larger than the average surface compressive stress in the peripheral region.

2. The tempered glass sheet according to Claim 1, wherein the average surface compressive stress is at least 90 MPa in the peripheral region of the tempered glass sheet.

3. The tempered glass sheet according to Claim 1,

wherein the border between the central region and the peripheral region is defined by lines connecting points where tips of cracks propagating from the gravity point towards the peripheral region when the tempered glass sheet is fragmented at the gravity point, meet elastic waves generated at the same time with the cracks, propagated at a speed of 1.7 to 2.3 times as much as the speed of the cracks and reflected regularly at the periphery of the tempered glass sheet.

4. The tempered glass sheet according to Claim 1, wherein the average surface compressive stress in the central region is from 8 to 47% larger than the average surface compressive stress in the peripheral region.

5. The tempered glass sheet according to Claim 1, wherein the thickness of the tempered glass sheet is at most 2.8mm, the average surface compressive stress in the central region is at least 100 MPa, and the average surface compressive stress in the peripheral region is at least 90 MPa.

6. A process for producing a tempered glass sheet, comprising steps of heating a glass sheet at a temperature close to the softening point, and cooling the surface of the glass sheet by means of a cooling means to form a residual compressive stress layer at the surface of the glass sheet and a residual tensile stress layer inside the glass sheet,

wherein the tempered glass sheet has in its front view a peripheral region including the periphery and a central region occupying the inside of the peripheral region, and the cooling capacity of a first cooling means for cooling the central region is from 16 to 78% larger than the cooling capacity of a second cooling means for cooling the peripheral region.

7. The process for producing a tempered glass sheet according to Claim 6, wherein the border between the central region and the peripheral region is defined by

lines connecting points where tips of cracks propagating from the gravity point towards the peripheral region when the tempered glass sheet is fragmented at the gravity point, meet elastic waves generated at the same time with the crack, propagated at a speed of 1.7 to 2.3 times as much as the speed of the cracks and reflected regularly at the periphery of the tempered glass sheet.

8. The process for producing a tempered glass sheet according to Claim 6, wherein the cooling capacity of the first cooling means is at least 520 $W/cm^2{}^oC$ and the cooling capacity of the second cooling means is at least 350 $W/cm^2{}^oC$.

9. An apparatus for producing a tempered glass, comprising a furnace for heating a glass sheet at a temperature close to the softening point, and a cooling means having a plurality of nozzles for blowing a cooling medium against the surface of the glass sheet to form a residual compressive stress layer at the surface of the glass sheet and a residual compressive stress inside the glass sheet, wherein the tempered glass sheet has in its front view a peripheral region including the periphery and a central region occupying the inside of the peripheral region, and the distance from the tip of the nozzle for cooling the central region of the glass sheet to the surface of the glass sheet, is from 10 to 50 mm shorter than the distance from the tip of the nozzle for cooling the peripheral region of the glass sheet to the

surface of the glass sheet.

10. The apparatus for producing a tempered glass according to Claim 9, wherein the border between the central region and the peripheral region is defined by lines connecting points where tips of cracks propagating from the gravity point towards the peripheral region when the tempered glass sheet is fragmented at the gravity point, meet elastic waves generated at the same time with the cracks, propagated at a speed of 1.7 to 2.3 times as much as the speed of the cracks and reflected regularly at the periphery of the tempered glass sheet.

11. The apparatus for producing a tempered glass according to Claim 2, wherein the border between the central region and the peripheral region is defined by lines connecting points where tips of cracks propagating from the gravity point towards the peripheral region when the tempered glass sheet is fragmented at the gravity point, meet elastic waves generated at the same time with the cracks, propagated at a speed of 1.7 to 2.3 times as much as the speed of the cracks and regularly reflected at the periphery of the tempered glass sheet.

12. The tempered glass sheet according to Claim 2, wherein the average surface compressive stress in the central region is from 8 to 47% larger than the average surface compressive stress in the peripheral region.

13. The tempered glass sheet according to Claim 2, wherein the thickness of the tempered glass sheet is at

most 2.8mm, the average surface compressive stress in the central region is at least 100 MPa, and the average surface compressive stress in the peripheral region is at least 90 MPa.

14. The tempered glass sheet according to Claim 3, wherein the average surface compressive stress in the central region is from 8 to 47% larger than the average surface compressive stress in the peripheral region.

15. The tempered glass sheet according to Claim 3, wherein the thickness of the tempered glass sheet is at most 2.8mm, the average surface compressive stress in the central region is at least 100 MPa, and the average surface compressive stress in the peripheral region is at least 90 MPa.